



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,115	08/06/2001	Arthur H. Barnes	10010364-1	9547

7590 03/15/2004
HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

SOHN, SEUNG C

ART UNIT PAPER NUMBER

2878

DATE MAILED: 03/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/923,115

Applicant(s)

BARNES, ARTHUR H.

Examiner

Seung C. Sohn

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-13 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 2, 2004 has been entered.

Claim Objections

2. **Claims 6-7 and 12** are objected to because of the following informalities:

On claim 6, line 8, "a memory" before "with an identifier" should be changed to – the memory -.

On claim 7, line 9, "the third print medium" after "the profile of" should be changed to – the third type of print medium -.

On claim 12, line 8, "absorptive element" after "said reflective element" should be changed to – said non-reflective element --.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. ***Claims 1-6 and 9-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Lisnyansky et al. (Patent No. US 5,047,652).***

Referring to claim 1, Lisnyansky et al. discloses the following steps of Applicant's claim:

a) transporting a print medium (Fig. 1, 12, i.e., web, typically paper) along a paper path (18) of a hard copy apparatus structure (10, i.e., on-line system) including a lower paper guide (22, i.e., backing roll) including a reflective element (Fig. 9, 184, i.e., "white" optical standard backing) and a non-reflective element (Fig. 9, 186, i.e., "black" optical standard backing), the lower paper guide positioned subjacently to a transmissive sensor (34);

b) beaming transmissive light through the print medium (Col. 8, lines 35-40);

c) impinging the transmissive light onto the reflective element (Col. 11, lines 53-64);

d) impinging the transmissive light onto the non-reflective element (Col. 11, lines 53-64);

e) sensing a reflected light from the reflected element and the non-reflected element (Col. 8, lines 56-60);

f) recording data representative of light reflection and light absorption (Col. 5, lines 53-62); and

g) comparing recorded data from said recording to predetermined data representative of a known print medium thickness and a known print medium transmissivity (Col. 9, lines 3-15).

Referring to claim 2, Lisnyansky et al. discloses the step of recording transmissive light levels of the print medium over a lightwave reflective element ("white"), and recording transmissive light levels of the print medium over a lightwave absorptive element ("black") (Col. 6, lines 45-60).

Referring to claim 3, Lisnyansky et al. discloses that when no match between said recorded data and said predetermined data is obtained, storing said recorded data as a new print medium data file (Col. 3, lines 57-65).

Referring to claim 4, Lisnyansky et al. discloses that the method as set forth in claim 1 embodied in computer code (Col. 5, lines 53-62).

Referring to claim 5, Lisnyansky et al. discloses the following steps of Applicant's claim:

a) transporting a print medium (Fig. 1, 12, i.e., web) along a paper path (18) of a hard copy apparatus structure (10) including a lower paper guide (22) including a reflective element (Fig. 9, 184, i.e., "white" optical standard backing)

and a non-reflective element (Fig. 9, 186, i.e., "black" optical standard backing), the lower paper guide positioned subjacently to a transmissive sensor;

b) beaming transmissive light through the print medium (Col. 8, lines 35-40);

c) impinging the transmissive light onto surface ("white") reflective of the transmissive light and a surface ("black") absorptive of the transmissive light (Col. 10, lines 5-10);

d) recording a profile representative of light reflection and light absorption of the print medium (Col. 10, lines 28-31), and

e) storing said profile in a memory with an identifier associated with said print medium (Col. 5, lines 57-62).

Referring to claim 6, Lisnyansky et al. discloses the following steps of

Applicant's claim:

a) beaming transmissive light through a second type of print medium (Col. 8, lines 35-40);

b) impinging the light onto a surface reflective of the transmissive light and a surface absorptive of the light (Col. 10, lines 5-10);

c) recording a profile representative of light reflection and light absorption (Col. 10, lines 28-31); and

d) storing said profile in a memory with an identifier associated with said second type of print medium (Col. 5, lines 57-62).

Referring to claim 9, Lisnyansky et al. shows in Figs. 1, 2 & 9 the following elements of Applicant's claim:

a) a light emitter (Fig. 2, 48, i.e., xenon flash lamp, Col. 8, lines 35-40) positioned in a linear transport region of a paper path (18), for directing a light beam across the paper path, the light beam having predetermined intensity and wavelength for penetrating a sheet of print media in said paper path (Col. 8, lines 25-34);

b) a reflective element (Fig. 9, 184, i.e., "white" optical standard backing) and a non-reflective element (Fig. 9, 186, i.e., "black" optical standard backing) mounted to an apparatus structure (Fig. 1, 10) including lower paper guide (22) positioned in the paper path (Col. 11, lines 53-64), the reflective element and the non-reflective element aligned with the light emitter; such that said light beam is received by the reflective element and the non-reflective element after passing through the sheet of print media in said paper path (Col. 10, lines 5-10); and

c) a light detector (Fig. 2, 88, i.e., photodiode array, Col. 8, lines 56-60) positioned in the linear transport region of the paper path (18) providing an output signal indicative of thickness and transmissivity of the sheet of print media (Col. 6, lines 14-30).

Referring to claim 10, it is inherent that said output signal further comprises a first level when no print media is interrupting the light beam, a second output signal indicative of the sheet of print media interrupting the light beam, and at least one other signal level indicative of multiple sheets of print media interrupting the light beam.

Referring to claim 11, Lisnyansky et al. discloses said output signal is a first signal when no paper is interrupting the light beam, a second signal when the sheet of paper is interrupting the light beam over a reflective surface, and a third signal when the sheet of print media is interrupting the light beam over an absorptive surface (Col. 6, lines 35-41).

Referring to claim 12, Lisnyansky et al. discloses mounting means (140) for scanning said light beam across the paper wherein the reflective element ("white") and the non-reflective element ("black") are mounted transverse to said paper path such that the sheet of print media passes between said light emitter and said reflective element and absorptive element (Col. 10, lines 44-56).

Referring to claim 13, it is inherent that the emitter means may be an LED optical emitter.

Allowable Subject Matter

5. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter:

Claim 7 is allowable because the prior art fails to disclose or make obvious, either singly or in combination, a method for characterizing print media comprising, in addition to the other recited features of the claim, "recording a profile representative of

light reflection and light absorption of the third type of print medium and referencing said memory as a look-up table for identifying the profile of the third print medium”.

7. Claim 8 is allowed.

8. The following is an examiner’s statement of reasons for allowance:

Claim 8 is allowable because the prior art fails to disclose or make obvious, either singly or in combination, a method for determining a multi-pick feed of cut sheet print media comprising, in addition to the other recited features of the claim, “recording third data representative of the print medium thickness and transmissivity and comparing said third data to said first and second data”.

Response to Arguments

9. Applicant's arguments filed on February 2, 2004 have been fully considered but they are not persuasive. Lisnyansky et al. clearly shows in Figs. 1 & 9 a reflective element (Fig. 9, 184, i.e., “white” optical standard backing) and a non-reflective element (Fig. 9, 186, i.e., “black” optical standard backing) mounted to an apparatus structure (Fig. 1, 10) including a lower paper guide (22) positioned in the print media transport path (Col. 11, lines 53-64).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seung C. Sohn whose telephone number is (571) 272-

2446. The examiner can normally be reached on Monday through Friday from 8:30 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SCS

SCS


THANH X. LUU
PATENT EXAMINER